Message

From: GT700@dnvps.com [GT700@dnvps.com]
Sent: 11/1/2013 7:04:44 PM
To: Robert Love [rlove@aet-tankers.com]
CC: Eagle Boston [eagle.boston@aet-tankers.com]
Subject: EAGLE BOSTON, FUEL ANALYSIS REPORT, OFF US GULF, 21-OCT-2013, SAMPLE : HOU1326096

To: AMERICAN EAGLE TANKERS, INC.
Attn: Mr Robert Love, Bunker Manager

Cc: The Master Of 'EAGLE BOSTON'
Attn: Chief Engineer

DNV Petroleum Services - Fuel Analysis Report dated: 01-Nov-2013

Vessel: **EAGLE BOSTON (9111620)**

Sample Number	HOU1326096
Product Type	(HFO)
Bunker Port	OFF US GULF
Bunker Date	21-Oct-2013
Sampling Point	SHIP MANIFOLD
Sampling Method	CONTINUOUS DRIP
Sent From	HOUSTON, TX
Date Sent	30-Oct-2013
Arrived at Lab	31-Oct-2013
Supplier	BP
Loaded From	BRITISH EMISSARY
Quantity per C.Eng.	496

Seal data: DNVPS, SEAL INTACT, 7474301

Related Samples

Supplier	7474302
Ship	7474303
SHIP MARPOL	7474304
MARPOL	36275304

Receipt Data	Unit	
Source Of Data		B.D.N
Density @ 15°C	kg/m³	990.3
Viscosity @ 50°C	mm²/s	267.9
Sulfur	% m/m	2.57
Volume @ 60°F	bbl	2544.390
Quantity	MT	400.003

Tested Parameter	Unit	Result	RMG380
Density @ 15°C	kg/m³	990.3	991.0
Viscosity @ 50°C	mm²/s	303.5	380.0
Water	% V/V	0.3	0.5
Micro Carbon Residue	% m/m	12	18
Sulfur	% m/m	2.63	3.50
Total Sediment Potential	% m/m	0.03	0.10
Ash	% m/m	0.05	0.15
Vanadium	mg/kg	107	300
Sodium	mg/kg	25	
Aluminium	mg/kg	23	
Silicon	mg/kg	21	
Iron	mg/kg	31	

Nickel	mg/kg	32	
Calcium	mg/kg	13	
Magnesium	mg/kg	2	
Zinc	mg/kg	5	
Phosphorus	mg/kg	9	
Potassium	mg/kg	2	
Pour Point	°C	LT 24	30
Flash Point	°C	GT 70	60
Acid Number	mg KOH/g	0.38	
Strong Acid Number	mg KOH/g	0.00	

Calculated Values

Aluminium + Silicon	mg/kg	44	80
Net Specific Energy	MJ/kg	40.21	
CCAI (Ignition Quality)	-	854	
Quantity (Weight)	MT	400.005	
Quantity Difference	MT	0.002	

Note:
LT means Less Than, GT means Greater Than.
Quantity (Weight) is based on BDN Volume, DNVPS Density and a weight factor of 1.1 kg/m³ (ASTM D1250-80 Table 56).

Specification Comparison :

Results compared with amended ISO 8217:2005 specification RMG380, table 2. Based on this sample the specification is met.

Operational Advice :

Approximate fuel temperatures:

Injection:
140°C for 10 mm²/s
120°C for 15 mm²/s
110°C for 20 mm²/s
105°C for 25 mm²/s

Transfer :
40°C

Fuel contains abrasive contaminants as indicated by Aluminium + Silicon. Efficient centrifuging of the fuel is most important in order to reduce the abrasive contaminant to an acceptable level.

Maintain fuel temperature at 98°C at separator inlet and use reduced flow rate. Consider to operate separators in parallel. Please refer to manufacturers instructions for further information.

Based on Aluminium + Silicon content, we recommend to send a set of FSC samples to assess the efficiency and confirm optimum operation of the fuel treatment plant. As a minimum, representative samples taken before and after the separators are required for this assessment. Red labels should be used for the FSC samples. Please refer to the Instruction Manual included in the sample kits for more detailed information.

Best Regards,
On behalf of DNV Petroleum Services Pte Ltd
Christian Ryder
Assistant Technical Advisor

End of Report for EAGLE BOSTON

If not properly aligned, please change font to Courier New, size 10.
Reference to part(s) of this report which may lead to misinterpretation is prohibited.

NOTE: Please note that our lab in Oslo is no longer in operation. The latest revision(revision 25, November 2012) of our Air Courier Directory contains instructions on which lab samples should be sent to. Reporting may be delayed for samples that from now on arrive in Oslo. If you have any questions or do not have the latest version of the air courier directory onboard, please contact your nearest DNVPS office.

For technical or operational advice or further information on this report please contact your nearest DNVPS office or contact us directly at
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